

Appendix A - Fiber Optics Maintenance Manual

GLOBETrekker™

52xx Series GT



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**NORSAT GLOBETrekker™ – Appendix B – Fiber Optics Maintenance Manual.
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1. PREFACE

1.1 Purpose and Scope of the User Guide

This maintenance manual explains procedures to:

- Perform basic field maintenance for fiber optics during deployment
- System repair to the level of fiber optic module replacement

This user guide is specifically written for the GLOBETrekker™ Baseband

1.2 Audience

The guide will be of interest to the following personnel:

- Skilled Maintenance Technicians
- Systems administrators (or IT; Lifecycle/Sustainment Managers)

**READ THE MANUAL BEFORE YOU ATTEMPT REPAIRS OR MAINTENANCE
ON THE GLOBETrekker™**

2. FIBER OPTIC MAINTENANCE

2.1 Fiber Optic Connector Cleaning

The fiber optic connectors must be inspected for cleanliness during system assembly and cleaned if required.

The fiber optic connector lenses and mating surfaces must be cleaned if touched with fingers, tools, or otherwise contaminated.

It is not necessary to routinely break a fiber optic connection to clean it unless contamination is suspected.

2.2 Tools Required

- Cleaning buds (lint-free Q-tips)
- Optic Prep pre-saturated optical cleaning wipes

2.3 Procedure



WARNING! Never inspect or look into the end of fiber connector when optical power is applied. The infrared light cannot be seen but can cause serious eye injury!

1. Clean dust, dirt, or other contamination from the connector and cap before opening.

2. Twist the cap and barrel counter-clockwise to uncouple.



3. Moisten a cleaning bud with the solution in the Optic Prep wipe.



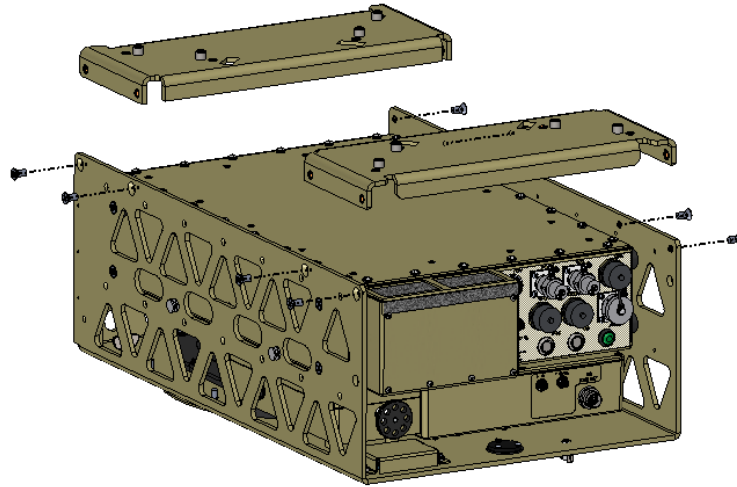
4. Clean each ball lens in the connector by twisting the cleaning bud.



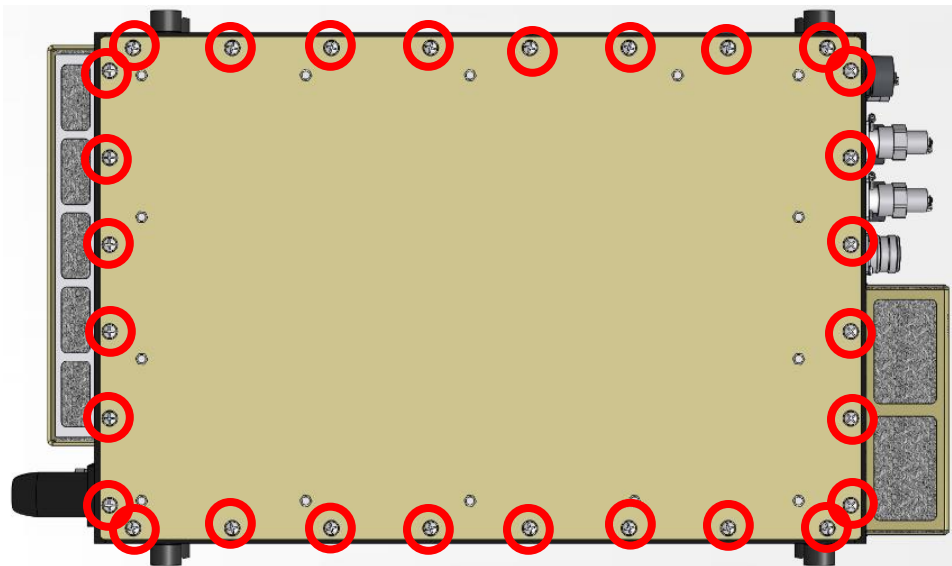
5. Repeat the ball lens cleaning with a clean, dry cleaning bud.
6. Inspect connector carefully to ensure that the ball lens and connector housing sealing face are contaminant-free.

2.4 Fiber Optic Outdoor Unit Replacement

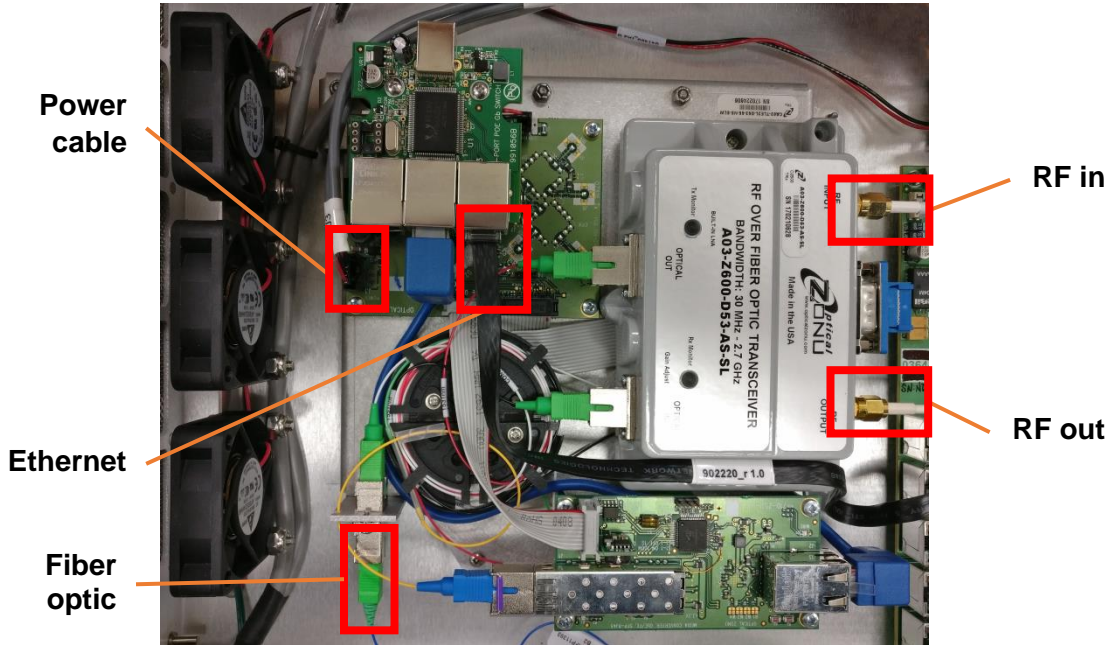
1. On the sides of the Azimuth Frame, remove eight (8) ¼-20 flathead screws using a #3 Phillips Screw Driver to remove the Leg Brackets.



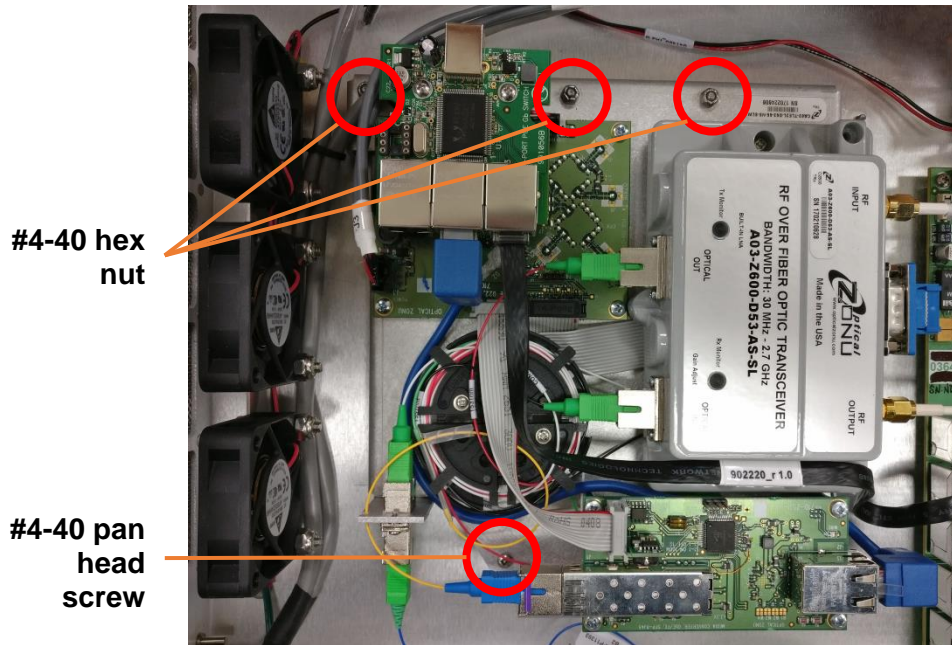
2. Remove twenty-eight (28) #6-32 truss head screws using a #2 Phillips Screw driver to remove the Lid.



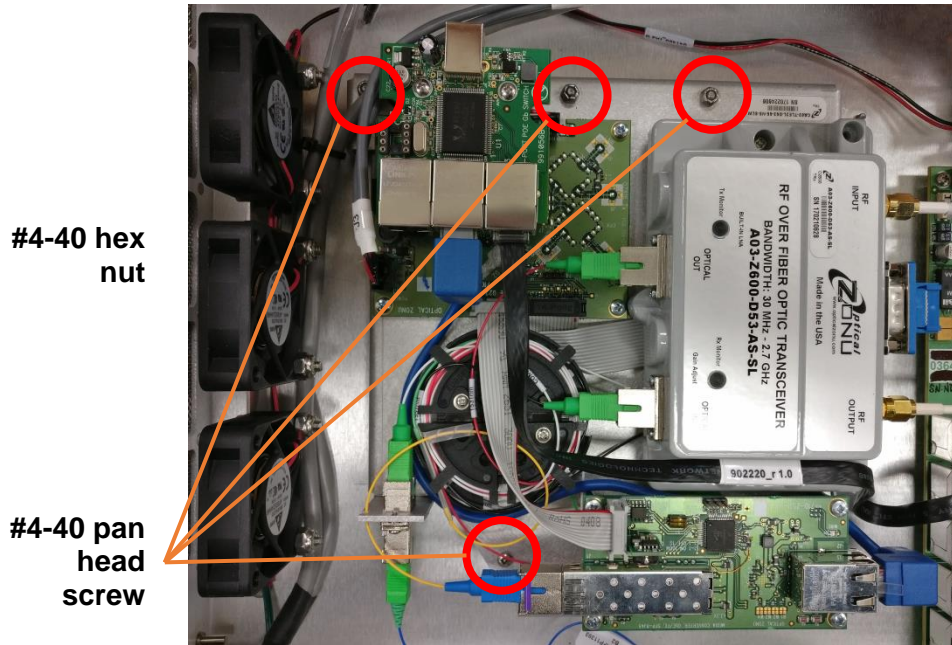
3. Disconnect the Ethernet cable, two (2) RF coaxial cables, fiber optic cable, and power cable from the Fiber Optic Unit.



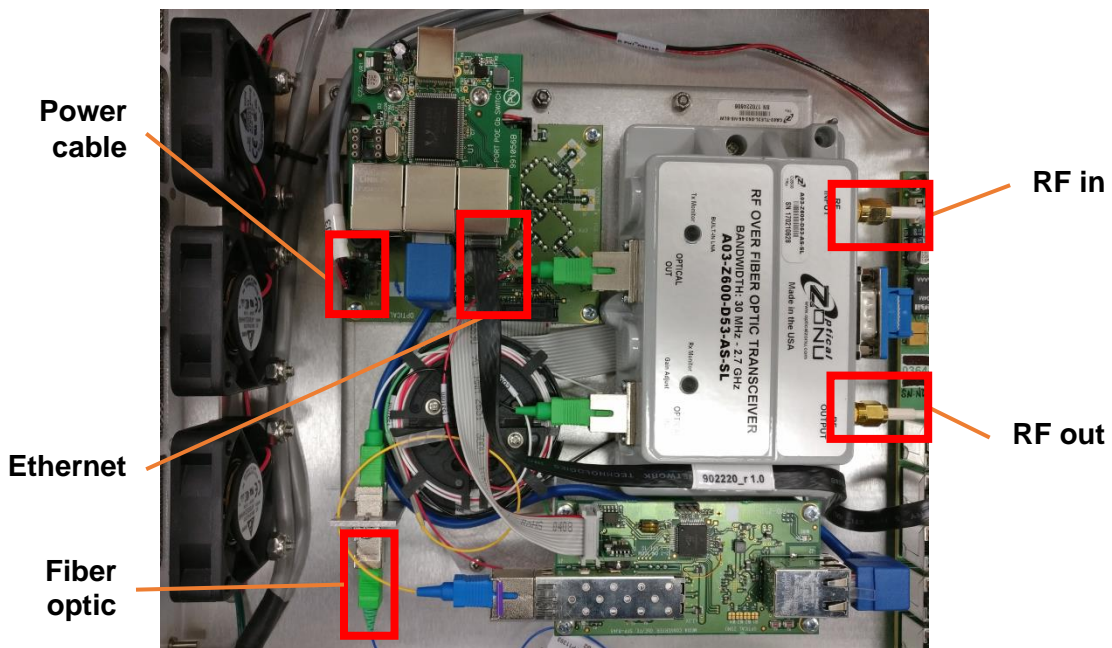
4. Remove three (3) #4-40 hex nut and one (1) #4-40 pan head screw using a 3/16" wrench and a #1 Phillips Screw Driver.



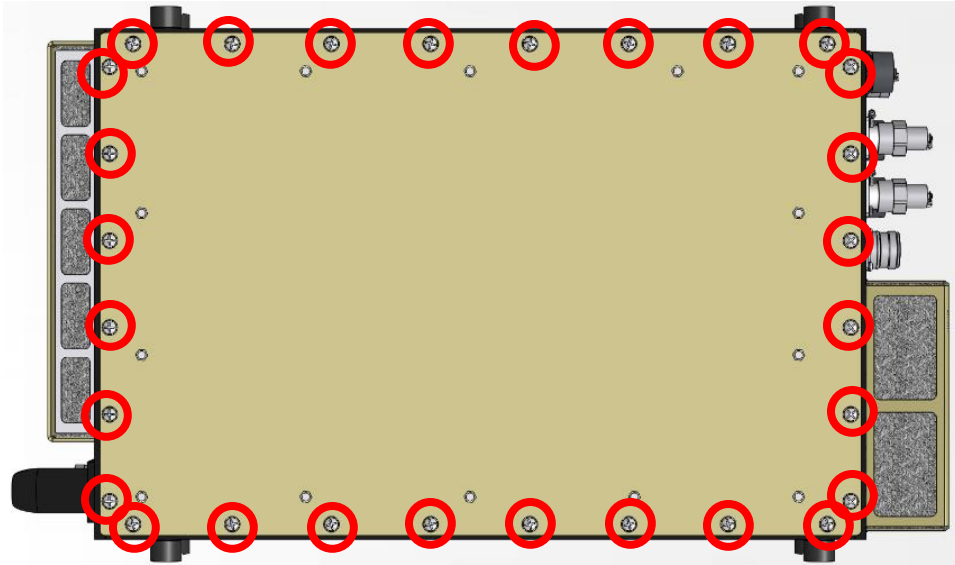
- Replace the Fiber Optic Unit in the Baseband.
- Fasten the Fiber Optic Unit using three (3) #4-40 hex nut and one (1) #4-40 pan head screw using a 3/16" wrench and a #1 Phillips Screw Driver. Use Loctite 222 for the pan head screw.



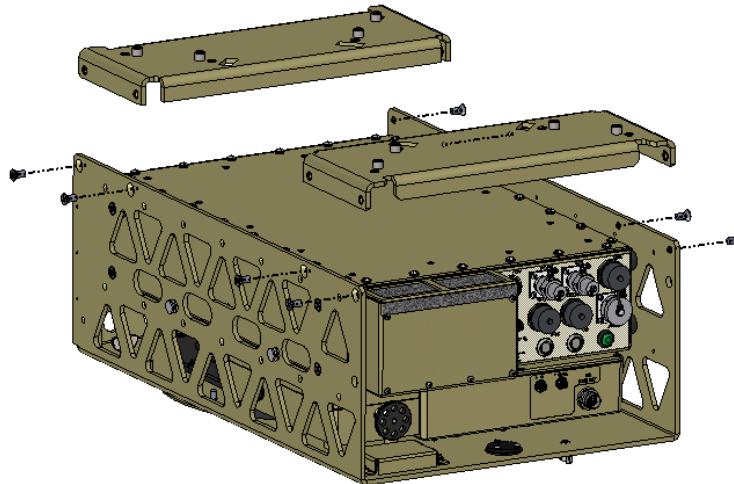
- Reconnect the Ethernet cable, two (2) RF coaxial cables, fiber optic cable, and power cable to the Fiber Optic Unit.



- Place the lid back onto the Baseband and fasten using twenty-eight (28) #6-32 truss head screws using a #2 Phillips Screw driver.

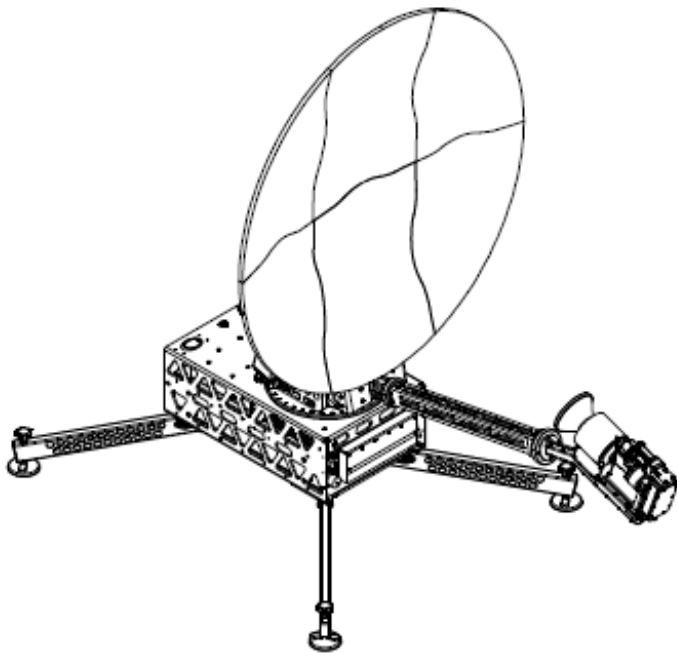


- On the sides of the Azimuth Frame, fasten eight (8) ¼-20 flathead screws using a #3 Phillips Screw Driver to reinstall the Leg Brackets.





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ABOUT NORSAT

Norsat International Inc., founded in 1977, is a leading provider of innovative communication solutions that enable the transmission of data, audio and video for remote and challenging applications. Norsat's products and services include customizable satellite components, portable satellite terminals, maritime solutions and satellite networks. The company's products and services are used extensively by telecommunications services providers, emergency services and homeland security agencies, military organizations, health care providers and Fortune 1000 companies.

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